1 TITLE OF INVENTION

2 Method and System for Increasing Expected Rate of Return and Maximum Payout in a

3 Game with One or More Players

4

5 CROSS-REFERENCE TO RELATED APPLICATIONS

6 This application claims benefit of U.S. Provisional Patent Application Nos. 60/260,546,

7 filed January 8, 2001 and 60/260,547, filed January 8, 2001, both of which are hereby

8 incorporated by reference.

9

10 BACKGROUND OF THE INVENTION

11 The global gaming industry is enormous, generating many billions of dollars in annual

12 revenue. It is a significant part of the global economy, with important relationships to the

13 global travel, entertainment, and telecommunications industries. Directly and indirectly,

14 the global gaming industry entertains and employs millions of people.

15

16 For all its value to the global economy, gaming has an obvious downside. The vast

17 majority of customers of the gaming industry lose money. This is true whether they visit

18 casinos, place bets over the internet, or buy lottery tickets. Most of these losses are

19 small; some, however, are catastrophic to the people involved.

20

21 Current games typically have--for the average player-- negative expected rates of

22 return, with the house receiving cumulative net gains. Obviously, there are individual

23 players who win money, hot tables, etc., but these are, for the most part, statistical

24 anomalies and do not disprove the above statement.

25

26 A more serious exception should be noted: occasionally, a player devises a way to

27 "beat the dealer" at his own game. In such cases, a window opens in which, for certain

28 players, the true expected rate of return is greater than the house believes.

29

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30   In short order, the house adapts, either by changing the game or ejecting the

31   excessively successful player(s); otherwise the game soon ends, for the simple reason

32   that the house cannot afford to play a losing game indefinitely, any more than a player

33   can.

34

35   Another limitation of the gaming industry is that large prizes cannot be offered unless

36   some entity is willing to accept the risk of payout. For example, assume that a lottery

37   wishes to offer a one billion dollar prize with appropriately long odds against anyone

38   winning the prize. The prize cannot be offered unless a backer willing to accept the risk

39   of payout can be found. Insurance and reinsurance companies offer backing for certain

40   rare events, such as holes-in-one; but for truly enormous prizes there may be no entity

41   ready to accept the risk.

42

43   BRIEF SUMMARY OF THE INVENTION

44   The present invention addresses the problems of low expected rates of return and the

45   difficulty of finding guarantors for large payouts by providing two independently useful

46   and mutually complementary modules:

47

48   A return enhancement module that facilitates the design of games of chance and/or

49   skill such that losers may be the exception rather than the rule. Analytically, this module

50   provides a way to increase the expected return in a game of chance and/or skill

51   involving one or more players.

52

53   A payout enhancement module that facilitates larger prize pools by creating financial

54   instruments whose value is linked to the play of one or more games of chance and/or

55   skill. This payout enhancement module may also be used in connection with other

56   events that can be modeled in a game-theoretic framework.

57

58   As used herein, the term "residual value" refers to a number, which may preferably be a

59   positive number less than one, used to indicate the portion of a player's financial

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60   consideration allocated to purchase of assets rather than to play. It may be expressed

61   as a percentage. In an alternative preferred embodiment, the residual value may be

62   greater than or equal to one, in which case the game sponsor or an affiliated entity may

63   be extending credit to the player.

64

65   As used herein, the term "expected rate of return" refers to a predicted average value of

66   return, which may be expressed as an annualized percent.

67

68   As used herein, the term "payout structure" refers to a definition showing the set of

69   possible payouts from a game, along with the estimated odds of each payout.

70

71   As used herein, the term "token" refers to a lottery ticket, gambling chip, game piece,

72   electronic game piece, or other artifact used to represent value for gaming purposes.

73

74   BRIEF DESCRIPTION OF THE DRAWINGS

75

76   The above summary of the invention will be better understood when taken in

77   conjunction with the following detailed description and accompanying drawings in

78   which:

79   Figure 1 is a block diagram of an architecture suitable for implementing the present

80   method and system;

81   Figure 2 is a flow chart of a preferred embodiment of the operation and use of the

82   return enhancement module;

83   Figure 3 is a flow chart of a preferred embodiment of the operation and use of the

84   payout augmentation module; and

85   Figure 4 is an illustration of the flow of money in an embodiment of a game of the

86   present invention.

87

88   DETAILED DESCRIPTION OF THE INVENTION

89

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90   The present invention addresses the problem of low expected rates of return and the

91   difficulty in finding backers for large prize payouts. It comprises two independently

92   useful and mutually complementary components for expected return enhancement and

93   maximum payout augmentation.

94

95   •   A return enhancement module (REM) that facilitates the creation, modification, and

96   operation of games of one or more players characterized by increased expected

97   return.

98   •   A payout augmentation module (PAM) that facilitates the creation and administration

99   of financial instruments linked to gaming or other events and useful to gaming

100   entities and to investors seeking portfolio diversification.

101

102   Each of the above modules may be used singly or in combination to facilitate creation

103   and operation of games in which losers are the exception rather than the rule and in

104   which prizes can be substantially larger. In a preferred embodiment, the modules are

105   implemented as part of a secure, interactive, online network, e.g., a virtual private

106   network accessible via an internet protocol. In a preferred embodiment, the modules

107   themselves may be implemented in software, hardware, or any appropriate combination

108   of the two. This allows for efficient design and administration of games and financial

109   instruments.

110

111   A suitable architecture for implementing the present method and system is shown in

112   Fig. 1. As shown in Fig. 1, the architecture comprises a return enhancement module 15,

113   a payout augmentation module 25, a game playing module 35, and an investment

114   management module 45. These modules may preferably be operated and maintained

115   by an entity that conducts one or more games as described below. In some preferred

116   embodiments, one or more of the modules, such as investment management module

117   45, may be operated and maintained by a distinct entity, such as an investment entity.

118   A plurality of players 55 and investors 65 preferably interact with these modules via

119   appropriate networks and/or other communications means as described above.

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120

121 RETURN ENHANCEMENT MODULE

122 This module provides a way to increase the expected return in a game involving one or

123 more players. For example, this module may be used to change a zero-sum game into

124 a positive sum game that benefits all (or nearly all) players. The module facilitates these

125 benefits without harming the gaming industry's profitability; indeed, it makes possible a

126 significant expansion of an industry whose growth prospects might otherwise be

127 questionable.

128

129 REM operates to link games (such as lotteries, casino gambling, and internet gambling)

130 to assets (such as bonds, gold coins, mutual funds, and savings accounts). Games are

131 typically characterized by expected rates of return (to all players, excluding the house)

132 that are zero or negative. Many assets are characterized by expected rates of return

133 that are positive.

134

135 The present system and method provide a mechanism by which an entity that conducts

136 games may change the payout structure for players of a game from the payout

137 structure associated with the game alone to a payout structure that is a function of both

138 the game and one or more assets. More specifically, in a preferred embodiment, a

139 residual value is chosen that will be used to determine the portion of a player's financial

140 consideration for participating in the game that will be allocated to the purchase of one

141 or more assets. The assets to be purchased are also chosen. As noted below, the

142 residual value and asset distribution may be determined by either the player or the

143 entity that conducts the game.

144

145 When a player submits his or her financial consideration for participation in the game, a

146 portion of the financial consideration (defined by the residual value) is allocated to

147 purchase the one or more assets. As a result , the player's payout structure for

148 participating in the game is modified from that of the game alone and is a function of

149 the game, the selected residual value, and the selected one or more assets.

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150

151   Three exemplary applications for REM are described below:

152

153   REM casinos may issue chips whose value is only partially determined by the outcome

154   of the games played at the casino. Alternatively, the casino may simply record each

155   player's participation without distributing a physical or electronic chip. A residual value

156   (RV), which can range from close to 0% up to close to 100% is preferably retained by

157   the player who may be issued a receipt whenever (s)he buys chips. If the casino

158   operator or affiliated entity extends credit to a player, then the RV can equal or exceed

159   100%. The receipt, which may be paper-based, or stored in an electronic or analogous

160   data storage device, retains its value for the customer independently of what happens

161   to the chips. The value of the chips for gaming purposes is decremented in the amount

162   of the RV, less an optional processing fee. For example, if the RV is 50%, there is no

163   processing fee, and a player purchases $500 in chips, what the player actually receives

164   is $250 in gaming value and a receipt worth $250 that is linked to one or more assets.

165

166   In one preferred embodiment, the residual value would not affect the notional amount of

167   chips issued to a player. A given sum of money would purchase the same apparent

168   notional value of chips no matter which RV is in effect at the time of sale. Such RV is

169   referred to herein as transparent residual value ("TRV"). TRV may preferably be

170   implemented by coding the chips in such manner that a casino's games will recognize

171   the chips net value (face value less residual value) and will automatically adjust payout

172   odds and/or amounts appropriately.

173

174   In a second preferred embodiment, the residual value would be reflected in the notional

175   amount of chips issued to a player. A given sum of money would purchase a value of

176   chips reduced by the amount allocated to acquisition of assets. Such RV is referred to

177   herein as subtractive residual value ("SRV"). SRV may preferably be implemented by

178   multiplying the RV percentage by the value of chips notionally purchased to determine

179   the value of chips to be given to the player.

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180

181 REM internet betting facilities may issue virtual "chips" whose value is only partially

182 determined by the outcome of the games played. Alternatively, the facility may simply

183 record each player's participation without distributing a physical or electronic chip. A

184 residual value (RV), which can range from close to 0% up to close to 100% is preferably

185 retained by the player who may be issued a receipt whenever (s)he buys "chips". If the

186 internet betting facility operator or affiliated entity extends credit to a player, then the RV

187 can equal or exceed 100%. The receipt, which may be paper-based, or stored in an

188 electronic or analogous data storage device, retains its value for the customer

189 independently of what happens to the chips. The value of the chips for gaming

190 purposes is preferably decremented in the amount of the RV, less an optional

191 processing fee. For example, if the RV is 50%, there is no processing fee, and a player

192 purchases $500 in chips, what the player actually receives is $250 in gaming value and

193 a receipt worth $250 that is linked to one or more assets.

194

195 REM lotteries. State run lotteries generate billions of dollars in revenue for the states,

196 by dangling a small number of very large prizes in front of millions of suggestible

197 individuals, and spending lavishly on advertising and related promotions. The net result

198 is additional money for the states, a few new millionaires, millions of small losses, and

199 all-too-many ruinous losses.

200

201 An REM lottery ticket has a residual value (RV) which can range from close to 0% up to

202 close to 100%. Alternatively, the lottery operator may simply record each player's

203 participation without distributing a physical or electronic ticket. If the lottery operator or

204 affiliated entity extends credit to a player, then the RV can equal or exceed 100%. A

205 receipt, which may be paper-based (e.g., the ticket can serve as the receipt), or stored

206 in an electronic or analogous data storage device, retains its value for the customer

207 independently of the outcome of the lottery. The value of the ticket for gaming purposes

208 is preferably decremented in the amount of the RV, less an optional processing fee. For

209 example, if the RV is 50%, there is no processing fee, and a player purchases $50 in

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210 lottery tickets, what the player actually receives is the equivalent of $25 in traditional

211 lottery-ticket value and a receipt worth $25 that is linked to one or more assets.

212

213 In each of these examples, REM works by linking gaming to accumulation of assets.

214 These assets may include:

215 1. fixed income instruments/securities including U.S. government savings bonds

216 2. equity securities(shares of stock)

217 3. mutual fund shares, other investment company shares, and/or "folios"

218 4. derivative instruments with value linked to objectively verifiable economic/financial

219 data

220 5. bank deposits, including CDs, savings accounts, and interest-bearing checking

221 accounts

222 6. other approved savings or investment vehicles that might be issued and/or backed by

223 governments, government agencies, corporations, and/or other organizations

224

225 Specific examples of RV assets may include: long-term bonds with high credit quality,

226 paying a guaranteed rate; shares in an equity index, linked to specific equity securities

227 or broad market indices such as the Standard & Poor's 500 Index.

228

229 The expected return from a game designed in accordance with the present invention is

230 preferably a function of a plurality of factors including the RV percentage, the expected

231 return of the underlying asset(s), processing fees if any, holding period of the RV, the

232 expected return of the games played by the player, and the number of plays. In general,

233 the higher the RV, the higher the expected return of the underlying asset(s), the lower

234 the processing fees, the longer the holding period of the RV, the higher (i.e., less

235 negative) the return on play, and the smaller the number of plays, the higher will be the

236 expected rate of return on the game.

237

238 One preferred embodiment would combine a high RV with a high expected rate of

239 return on the underlying asset(s), no processing fee, long holding period, near

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240 breakeven return on play, and small number of plays. This combination of factors might

241 well provide a higher expected return than many conservative investments.

242

243 On the other hand, a low RV with a poor return on play would likely be as poor an

244 investment as a straight lottery ticket (or retail commodity trading) is today.

245

246 Features that would discourage turnover on the asset side would have a positive effect

247 on expected returns. If, for example, RVs can be deposited into brokerage accounts, or

248 if state or national lotteries are recast as combination lotteries/savings bond drives, an

249 enormous amount of saving and investment activity could be created. REM savings

250 bonds, issued by the U.S. Treasury, could be bought and sold at banking institutions.

251

252 In one preferred embodiment of the present invention, the amount (percentage) and/or

253 type of assets are selected by the players. For example, one player may choose an RV

254 of 50% and an asset type of U.S. government savings bond, while another player may

255 choose an RV of 150% and an asset class of marginable stock.

256

257 In another preferred embodiment of the present invention, the amount (percentage)

258 and/or type of assets are selected by the game operators. For example, a New York

259 State Lottery could stipulate an RV of 20% invested in New York State bonds whose

260 proceeds would help finance reconstruction of lower Manhattan. A United States

261 Lottery could stipulate an RV of 80% that would go directly into a players individual

262 retirement account (or comparable Social Security Account, should these exist).

263

264 Widespread adoption of games designed in accordance with the present invention may

265 enable operators of lotteries and other games to influence players' choices of assets.

266 Widespread adoption of such games could also reduce the impoverishing effect of

267 gaming while encouraging saving and investment in the individuals and families

268 currently least well served by the investment industry. It could be a "win-win" situation

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269   for all concerned: for players, for the gaming industry, and for the securities industry as

270   well.

271

272   A preferred embodiment for operation and use of return enhancement module 15 of

273   Figure 1 is now described in connection with Figure 2 and Figure 4. Figure 2 illustrates

274   the steps of said preferred embodiment. Figure 4 illustrates the flow of money or other

275   financial consideration in said preferred embodiment.

276

277   Flows of money or other financial consideration are shown as solid head arrows in

278   Figure 4. An example is element 431, the flow of money used to purchase tokens.

279   Said flow of money is from players 402, 404, 406 to an entity 405 conducting a game.

280

281   Quantities of money or other financial consideration are shown as vertical bars or

282   vertical open head arrows in Figure 4. An example of a vertical bar is element 422a.

283   Said element represents the money from player 402 used to purchase a game token

284   412. An example of an open head arrow is element 420a. Said element represents the

285   total money paid by players 402, 404 and 406 to purchase game tokens 412, 414 and

286   416 from entity 405 conducting a game.

287

288   Stick figures in Figure 4 each represent a set of one or more individual players. An

289   example is element 402. Said element represents a set of one or more players who

290   win a game as discussed below.

291

292   Rectangles with recurved corners in Figure 4 represent entities. Element 405, for

293   example, represents an entity conducting a game.

294

295   Rectangles with a folded corner represent a set of one or more tokens. Element 412 is

296   an example.

297

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298 As shown in step 1 of Figure 2 and further illustrated in Figure 4, an entity 405

299 conducting a game provides one or more tokens 412, 414, 416 to one or more players

300 402, 404, 406 for financial consideration 420a. Thus, for example, where the game is a

301 lottery, a player 402 may purchase one or more lottery tickets 412 for, e.g., $1 (422a)

302 per ticket. Alternatively, the entity conducting the game may simply record each player's

303 participation in the game without distributing a physical or electronic token.

304

305 For purposes of the present example, it will be assumed that the game to be played is a

306 lottery with the following rules. Six numbers from a total of 48 numbers will be drawn at

307 random. Any ticket holder 402 who correctly identifies all six numbers will share 441 in

308 a prize 421 which pays $50,000,000 over 20 years, with a net present value of

309 $20,000,000. Revenue from ticket sales minus the $20,000,000 needed to fund the

310 prize will be kept 445 by the entity running the lottery and/or distributed 443 to

311 charitable or governmental entities 403 in accordance with any agreements between

312 those entities or as required by law. The amount distributed as prize money is element

313 421. The amount kept by the entity running the game is 425. The amount distributed

314 to a charitable or governmental entities is element 423. If no prize is awarded, the

315 $20,000,000 is preferably added to the prize pool for a future lottery.

316

317 In step 2 of Figure 2 and as further illustrated in Figure 4, said entity 405 operating said

318 game allocates a portion 420b of the financial consideration to purchase 433 one or

319 more assets 420c. As noted above, this allocation is preferably determined as a

320 function of the residual values 422b, 424b, 426b defined for the players and/or game.

321 Thus, continuing with the above example, if the residual value is 50%, the entity will

322 allocate 50 cents of every dollar (or other suitable currency) received from the player to

323 the purchase of one or more assets.

324

325 In step 3 of Figure 2, the entity or its agent or other affiliated entity purchases one or

326 more assets with the allocated portion of the financial consideration. Thus, continuing

327 with the above example, if the entire residual value is to be invested in 12-year zero-

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328   coupon U.S. government bonds with a 6% yield to maturity, 50 cents of every dollar

329   received from the player will be used to purchase such bonds.

330

331   Referring to Figure 4, in a preferred embodiment, the purchased assets 420c are added

332   to accounts 422c, 424c, 426c associated with the players 402, 404, 406. The accounts

333   may be automatically established upon receipt of financial consideration from the

334   players or may alternatively be a previously established accounts specified by the

335   players or the entity.

336

337   Continuing with the above example, if 100,000,000 tickets are sold to 25,000,000

338   players at a cost of $1 per ticket, and if (for purposes of the example) an RV of 50% is

339   established for the game (i.e., the same RV for every player), and if (for purposes of the

340   example) all allocated portions of the received sales revenue is put to purchase of the

341   above-described bonds, then the present example would result in purchase of

342    $50,000,000 worth of the above-described bonds distributed (preferably as fractional

343   ownership interest in individual bonds) among the 25,000,000 players in accordance

344   with the number of tickets that each player purchased.

345

346   In step 4 of Figure 2 and as further illustrated in Figure 4, the game is conducted 432 by

347   the entity. Thus, continuing with the above example, lottery numbers for the lottery are

348   drawn and e.g., broadcast or otherwise transmitted by television or other suitable

349   medium to the ticket holders participating in the lottery.

350

351   In step 5 of Figure 2 and as further illustrated in Figure 4, players 402 who are winners

352   in the game receive 441 payouts 421 in accordance with the rules of the game and the

353   results of the game's playing. Thus, continuing with the above example, if three players

354   each hold one ticket with the winning numbers then each winning player would share in

355   the prize of $50,000,000, whose net present value cost to the entity operating the

356   lottery is $20,000,000. The remaining $30,000,000 would be allocated between the

357   entity running the lottery and the other entities, as noted above. Also, as noted above, if

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358   there is no winner, the $20,000,000 prize money would preferably be held as additional

359   prize money for a future lottery.

360

361   In step 6 of Figure 2, each player determines whether he or she wishes to sell one or

362   more of the assets held in his or her account. Continuing with the above example, if the

363   player wishes to sell one or more assets, he or she would receive the current market

364   value of the assets, less a sales commission.

365

366   As illustrated in Figure 4, if the players 402, 404, 406 decided not to sell their assets,

367   the cash value 420d of the assets 422d, 424d, 426d purchased with the allocated

368   portion of the players' financial consideration would, at maturity 434, be approximately

369   equal to the dollar value 420a of the original ticket purchases. The assets would then

370   be disbursed 435 to said players.

371

372

373   PAYOUT AUGMENTATION MODULE

374   As noted above, in a preferred embodiment, the present system and method may also

375   comprise a payment augmentation module to facilitate backing of large gaming prizes.

376   This module may be used by the gaming industry (and others such as state-run

377   lotteries, financial institutions, etc.) to offer far larger prizes than would otherwise be

378   possible and otherwise link financial instruments to the outcomes or other events

379   associated with the playing of one or more games. In this aspect, the disclosed system

380   and method employ financial instruments linked to external events ("FILs") that are

381   designed to help insurers and reinsurers to hedge the risk they incur when they

382   guarantee a prize.

383

384   For example, say that there are ten state lotteries, each offering $1 billion prizes, each

385   with odds of a hundred to one against there being a winner. Without FILs, insurers and

386   reinsurers are limited to private transactions to apportion the risk among themselves.

387   For large risks, however, they may be left with more collective risk than they want to

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388   hold. With FILs, they can hedge that risk by selling a securitized form of the risk they

389   wish to reduce. In the present example, the FIL would be a lottery-backed security

390   ("LBS"). LBSs would be highly attractive to institutional and other investors as portfolio

391   diversifiers, because such investors often need to find assets whose return

392   characteristics have a low correlation to the balance of their portfolios.

393

394   FILs operate to link games to financial instruments whose value depends upon the

395   outcome or other events associated with those games. Three exemplary applications

396   for PAM are described below:

397

398   FILs for casino (or internet) games are preferably fixed- or floating-rate debt instruments

399   linked to the outcome of specific casino (or internet) games (e.g., blackjack) at specific

400   casinos during specific periods of time. These instruments may have a convertibility

401   feature, allowing holders to exchange them at certain periods for a specified amount of

402   equity securities which may be issued by the same or a related issuer. They may also

403   be issued with embedded options, either to allow the issuer to call the debt at certain

404   times and under certain conditions, or to allow the debt-holder to put the debt back to

405   the issuer.

406

407   FILs for lotteries are preferably fixed- or floating-rate debt instruments backed by the

408   outcome of specific lottery games (e.g., pick 6 Lotto) offered by specific entities (such

409   as New York State) at specific periods of time. These instruments may have a

410   convertibility feature, allowing holders to exchange them at certain periods for a

411   specified amount of equity securities which may be issued by the same or a related

412   issuer. They may also be issued with embedded options, either to allow the issuer to

413   call the debt at certain times and under certain conditions, or to allow the debt-holder to

414   put the debt back to the issuer.

415

416   State run lotteries generate billions of dollars in revenue for the states. By enabling

417   states (and other organizations) to offer much larger prizes, FILs can help these

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418   organizations raise additional revenues. In the case of state lotteries, such revenues

419   may allow states to significantly reduce taxes.

420

421   Multi-FILs are preferably fixed- or floating-rate debt instruments backed by the outcome

422   of a collection of casino, internet, lottery, and/or other games. They may be created by

423   combining existing FILs or directly. These instruments may have a convertibility feature,

424   allowing holders to exchange them at certain periods for a specified amount of equity

425   securities which may be issued by the same or a related issuer. They may also be

426   issued with embedded options, either to allow the issuer to call the debt at certain times

427   and under certain conditions, or to allow the debt-holder to put the debt back to the

428   issuer. Multi-FILs may be a convenient way for institutional investors to acquire a target

429   allocation in this asset class. They may vary as to composition and percentage

430   breakdown, to allow investment managers greater flexibility and to help address any

431   constraints with respect to investment policies (e.g., investing in state-issued debt may

432   be preferred by one type of fund, another type of fund might exclude certain games or

433   companies to meet a socially responsible investing agenda, etc.)

434

435   A beneficial side-effect of FILs is the low expected correlation between their

436   performance and those of conventional securities. Of course, fixed rate debt

437   instruments will be sensitive to changes in interest rates, and convertible bonds will be

438   affected by the general vigor of the economy.

439

440   Nonetheless, the underlying value and the return characteristics, driven by the outcome

441   of random events, is by definition uncorrelated to anything else, making FILs a

442   potentially superior source of investment diversification than any existing financial

443   instrument. In a preferred embodiment, fund managers or others may design FILs

444   whose returns will have a correlation coefficient of zero to a given set of other financial

445   instruments. The creation of a market in FILs would not only help create more exciting

446   games for millions of people; it would provide investors, in particular institutional money

447   managers responsible for the retirement security of hundreds of millions of people, with

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448 a sorely needed portfolio diversification tool. And it would offer governments an
449 attractive means of raising greater revenues and/or lowering taxes.

450

451 A preferred embodiment for operation and use of payout augmentation module 25 is
452 now described in connection with Fig. 3. As shown in Fig. 3, in step 1, an entity selects
453 one or more games to link to one or more financial instruments. For purposes of
454 example, assume that the entity is an insurance company that wishes to sell corporate
455 bonds and to link the bonds' yield to the outcome of a multi-state lottery.

456

457 In step 2, a set of characteristics that define each financial instrument is defined. The
458 characteristics preferably include characteristics that define the financial instrument's
459 value as a function of one or more outcomes or events associated with the one or more
460 games. Thus, continuing with the above example, the insurance company may design
461 par value AAA rated corporate bonds with a yield equal to:

462

463 the prevailing yield for this type of credit plus 20 basis points if there is no grand prize
464 winner in the multi-state lottery; and
465 the prevailing yield for this type of credit minus 180 basis points if there is at least one
466 winner.

467

468 For purposes of this example, it is assumed that the odds of there being at least one
469 winner in the multi-state lottery are 10 to 1 against.

470

471 In step 3, the entity determines the amount of each financial instrument it wishes to
472 issue (e.g., $5,000,000,000 of the bonds defined above). In step 4 the entity sells the
473 one or more financial instruments to one or more buyers at a mutually agreed price and
474 quantity. In a preferred embodiment, these purchasers may include institutional
475 investors desiring to purchase the financial instrument to diversify their portfolios, as
476 described above.

477

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478   In step 5, the one or more games are played, resulting in one or more outcomes or

479   other events. Thus, continuing with the above example, the lottery is conducted and

480   either results in no winner or in at least one winner.

481

482   In step 6, the financial instrument is valued as a function of the one or more outcomes

483   or other events. Thus, continuing with the above example, if there is no winner of the

484   multi-state lottery, the bonds are valued assuming a yield equal to the prevailing yield

485   for this type of credit plus 20 basis points. Alternatively, if there is at least one winner of

486   the multi-state lottery, the bonds are valued at the prevailing yield for this type of credit

487   minus 180 basis points.

488

489   In step 7, financial obligations between the entity and purchasers on the one or more

490   financial instruments are determined using the above valuations. In step 8, appropriate

491   payments are made between the parties to satisfy those financial obligations.

492

493   While the invention has been described in conjunction with specific embodiments, it is

494   evident that numerous alternatives, modifications, and variations will be apparent to

495   those skilled in the art in light of the foregoing description.

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